

Work Order ID 150087

Wednesday, August 24, 2016 10:25:14 AM

150087

Page 1

Item ID: D407-667-205 REPAIR

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Aft Crosstube - High 407

Start Date: 8/23/2016 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 8/24/2016 Req'd Qty: 1.00 ***1***

Customer: CMARI04

Reference: RMA RA112348

Approvals: Process Plan: Ymf Date: 16-08-30 Tooling:

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
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DAS
21
9-89
AUG 30 2016

100

0.00

100

QC

Quality Control

Memo

0.00

INSPECT RA112348
D407-667-205 X 1 B97430

CROSSTUBE WAS SENT ^{to} DART TO PROPERLY LOCATE CHAFING SHIELDS

REMOVE AND SCRAP:
D3190-1 X 2
MS21920-22 x 4

ID AS REPAIR @CHG 008 AND SEND BACK TO CUSTOMER

*IF ANY DAMAGE OR CORROSION FOUND AFTER REMOVAL OF CHAFING SHIELD, TUDE WILL NEED TO BE REWORKED PER RS1028

REPLACE IN ACCORDANCE WITH SB15-1

DAS DART AEROSPACE		1270 ABERDEEN ST. HAWKESBURY, ON, CANADA K6A 1K7 TEL: 1-613-632-5200 www.dartaero.com	
PATENT	N/A	CHG	CHG008
P/N	D407-667-205	STC	SH01-5
DESC.	Crosstube Aft High	STC	SR01304NY
LOT	B97430	STC	
MODEL	Bell 407	STC	
TC APPROVAL # 09-89		MADE IN CANADA	
		D2729-4	

Work Order ID 150087

Wednesday, August 24, 2016 10:25:14 AM

150087

Page 2

Item ID: D407-667-205 REPAIR Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Aft Crosstube - High 407
 Start Date: 8/23/2016 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 8/24/2016 Req'd Qty: 1.00 ***1*** Customer: CMARI04
 Reference: RMA RA112348

Approvals: Process Plan: mf Date: 16-8-24 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110		0.00							DAS 41 9-89
110						1			
Crosstubes	Memo	0.00							16-8-29
Crosstubes	REMOVE AND SCRAP: D3190-1 X 2 MS21920-22 x 4 REPLACE WITH NEW: D3190-1 X 2 B <u>See</u> MS21920-22 X 4 B <u>back</u>								
120	QC5- Inspect part completeness to step on W/O	0.00							DAS 38 9-89
120						1			
QC	Memo	0.00							
Quality Control									AUG 30 2016
130	Identify as per dwg & Stock Location: <u>sold</u>	0.00							
130									
Packaging	Memo	0.00							DAS 27 9-89 DAS 28 9-89
Packaging									

AUG 30 2016

Work Order ID 150087

Wednesday, August 24, 2016 10:25:14 AM

150087

Page 3

Item ID: D407-667-205 REPAIR**Accept*****N900040100*****Setup Start *NS1*****Revision ID:****Stop *NS2*****Item Name:** Aft Crosstube - High 407**Start Date:** 8/23/2016 **Start Qty:** 1.00***1*****Cust Item ID:****Required Date:** 8/24/2016 **Req'd Qty:** 1.00***1*****Customer:** CMARI04**Reference:** RMA RA112348**Approvals:** **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____**Run Start *NR1*****QC:** _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____**Stop *NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

DAS
21

3-89

dem 16/08/30

AUG 30 2016

Picklist Print

Wednesday, August 24, 2016 10:25:10 AM

Page 1

Work Order ID: 150087

150087

Parent Item: D407-667-205 REPAIR

D407-667-205 REPAIR

Parent Item Name: Aft Crosstube - High 407

Start Date: 8/23/2016

Required Date: 8/24/2016

Start Qty: 1.00

Required Qty: 1.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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D3190-1		Manufactured	No				Each	73.0000		2			
D3190-1									**			DAS 41 9-89	16-8-29
Chaffing Shield													

Location	Loc Qty	Loc Code
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LG-OVER	73	
138928	73	

D407-667-205 REPAIR		Manufactured	No				Each	2.0000		1			
D407-667-205 REPAIR									**			597430	16-8-26 DD
Aft Crosstube - High 407													

Location	Loc Qty	Loc Code
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FG097	2	
135863	1	
136053	1	

MS21920-22		Purchased	No				Each	22.0000		4			
MS21920-22									**			DAS 41 9-89	16-8-29
Clamp													

Location	Loc Qty	Loc Code
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LG050	22	
M135309	22	

Item	QTY -245	PART NUMBER	DESCRIPTION
	X	D407-667-245	CROSSTUBE ASSEMBLY (407 HIGH AFT)
1	1	D6011-115	CROSSTUBE
2	2	D2873-043	NUT PLATE
3	2	D2873-045	NUT PLATE
4	1	D2894-1	SUPPORT
5	2	D3190-1	CHAFING SHIELD
6	2	D3595-063-430	RUBBER CUSHION
7	14	MS20601AD4W8	RIVET (OR NAS9302B-4-8)
8	4	MS21920-22	CLAMP
9	2	MS21920-25	CLAMP (OR MS21920-24)
10	AR	SCOTCH-WELD DP460	EPOXY ADHESIVE, 3M SCOTCH-WELD
11	AR	PROSEAL 890	SEALANT

GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6011-115
FINISHED LENGTH = 112.91±0.020
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT CROSSTUBE PER DART QSI 005 4.2
FOR HATCHED AREAS (ZN A6-2), MASK AS REQUIRED
TO APPLY PRIME AND APPLY CLEAR COAT ONLY
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER "D407-667-245" AND BATCH NUMBER ON INSIDE OF CUFF USING VIBRATING STYLUS.
- 7) WEIGHT: 27.7 lbs
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) RUN-OFF PART. BLEND OUT EDGE LONGITUDINALLY. TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 6 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) INSTALL D2894-1 CENTER SUPPORT USING A 0.04" TO 0.07" THICK LAYER OF SCOTCH-WELD DP460 PER QSI 015. LET CURE FOR 24 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 13) INSTALL MS21920-25 CLAMPS WITH D3595-063-430 RUBBER CUSHIONS TO SECURE D2894-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMPS ARE OPPOSITE CROSSTUBE SUPPORT.
NOTE: MS21920-24 CLAMPS CAN BE USED TO ACCOMMODATE VARYING DIAMETERS. ENSURE THERE IS A MINIMUM OF 1.5 THREADS IN SAFETY ON THE NUTS.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 15) APPLY A THIN COAT OF PROSEAL 890 ON INSIDE CONCAVE SURFACE OF D3190-1 CHAFING SHIELDS AND LET CURE PER MANUFACTURER'S INSTRUCTIONS. INSTALL PROSEAL D3190-1 CHAFING SHIELDS ONTO CROSSTUBE BY APPLYING A THIN COAT OF PROSEAL 890 ONTO CROSSTUBE. BE SURE TO ELIMINATE ANY AIR GAPS.
- 16) INSTALL D3190-1 CHAFING SHIELDS SO THAT OVERLAP IS 50 TO 70 DEGREES FROM BOTTOM OF CROSSTUBE OPPOSITE D2894-1 SUPPORT.
- 17) TORQUE CLAMPS 80 TO 100 IN-LB. TORQUE CLAMPS ON D3190-1 CHAFING SHIELD 40 TO 50 IN-LB. ENSURE AT LEAST 1.5 THREADS ARE SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING. PRIOR TO PACKAGING, RE-CHECK TORQUE ON CLAMPS AFTER ADHESIVE HAS CURED FOR 24 HOURS.

G	INCORP. DEO's D407-667-245-F1/F2 (ZN D8-1, A8-1, D5-2, B6-2, C6-2); 8.90 WAS 8.53 (ZN D5-2); TORQUE REDUCED FOR CHAFING SHIELD (ZN A8-1); FINISH REVISED TO ALLOW MANUFAC. FLEXIBILITY (ZN C8-1)	RF	15.03.20
F	REFORMAT NOTES TO NEW STANDARDS (ZN B8-1); RELOCATED FLAG # 6 (ZN A8-3) PER NCR 210; REMOVED REF. & ADD TOLERANCES (ZN C6-3, C4-3 & D2-3)	RF	08.11.06
E	8.02 AND 8.53 WERE 8.40 AND 8.90 (ZN D5-2); REORGANIZED VIEWS AND REFORMATED DRAWING TO CURRENT STANDARDS. REASONS: CLAMPS MOVED 0.375 TOWARD CL TO ELIMINATE INTERFERENCE WITH AIRCRAFT MOUNTS. REFERENCE: PAR#08-21 AND ECR#1225	MB	08.07.24
D	ADD VIEW FOR OEM SKID HOLES, ROTATE ORIENTATION OF CLAMPS SECTION F-F, REMOVE -851 ABRASION STRIP, ADD MAGNOBOND 6398, ADD CUSHION	PH	07.02.07
C	ADD HOLES AND NUT PLATES FOR COMPATIBILITY WITH BHT/AA SKIDTUBES	PH	05.07.26
B	ADD CHAFING SHIELD	CP	03.05.21
A	NEW ISSUE	CP	02.05.13
REV.	DESCRIPTION	BY	DATE
DESIGN	qf	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	qf	DRAWING NO.	REV. G
MFG. APPR.	qf	D407-667-245	SHEET 1 OF 4
APPROVED	qf	TITLE	SCALE
DE APPR.	qf	CROSSTUBE ASS'Y (407 HIGH AFT)	NTS
DATE	15.03.20	COPYRIGHT © 2002 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

RELEASED

2015 APR 09

qf ECR 15-557

SERVICE BULLETIN SB15-1

REF. TCCA STC: SH01-5
 REF. FAA STC: SR01304NY
 REF. EASA STC: EASA.IM.R.S.01179
 REF. ANAC STC: 2009S08-17
 REF. JCAB STC: STC-32-OSA

The purpose of this Service Bulletin is to inform operators that the D3190-1 Chafing Shields on D407-667-205 Crosstubes at CHG 006/007/008 may have been installed at the incorrect location as shown in Figure 1 below. This issue has been corrected for D407-667-205 at CHG 009 and subsequent.

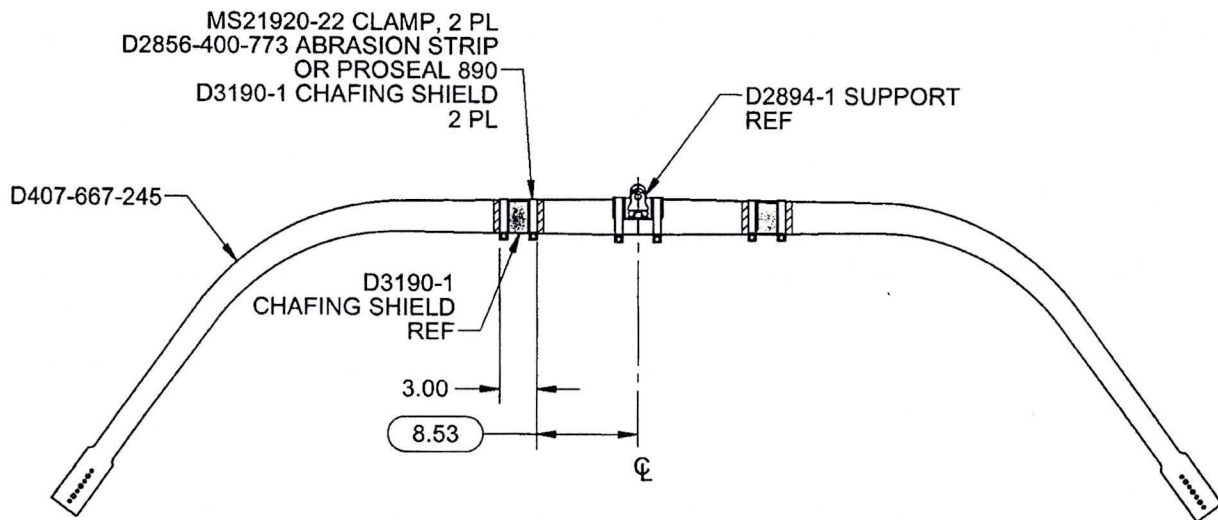


Figure 1 - Incorrect D3190-1 Chafing Shield Placement

A	NEW ISSUE	VS	15.12.09
REV.	DESCRIPTION	BY	DATE
DESIGN	VS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VS		
CHECKED	MB	DRAWING NO.	REV. A
MFG. APPR.	N/A	SB15-1	SHEET 1 OF 2
APPROVED	HS	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	SERVICE BULLETIN	NTS
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If the D3190-1 Chafing Shields have been installed per Figure 1, damage may occur on the strap assemblies (ref. P/N 400-052-015-101 or equivalent). Therefore, at the next scheduled 300 hour inspection or if damage is seen on the strap assemblies, the following procedure must be completed:

1. Remove the D407-667-205 Crosstube Installation from the aircraft per Paragraph 32.1 of ICA-D206-667.
2. Remove the D3190-1 Chafing Shield and D2856-400-773 Abrasion Strip (if present) per Paragraphs 32.7 and 32.5 respectively of ICA-D206-667.
3. Complete the 300 Hour Inspection and touch up finish as required.
4. Install the D3190-1 Chafing Shields in accordance with Paragraph 32.8 of ICA-D206-667 and Figure 2 of this Service Bulletin.
5. Re-install the D407-667-205 Crosstube onto the aircraft per Paragraph 32.2 of ICA-D206-667.

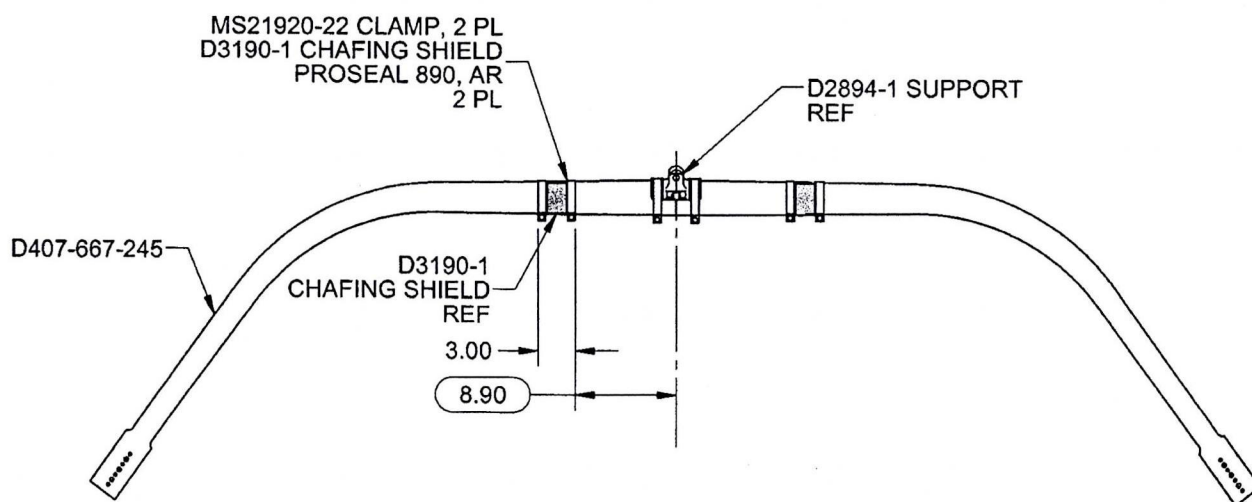


Figure 2 - Correct D3190-1 Chafing Shield Placement

If damage is found on the P/N 400-052-015-101 strap assemblies and it is greater than the maximum allowed or for further information, contact Dart Aerospace at support.on@dartaero.com:

DESIGN	VS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VS		
CHECKED	MB	DRAWING NO.	REV. A
MFG. APPR.	N/A	SB15-1	SHEET 2 OF 2
APPROVED	HS	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	SERVICE BULLETIN	NTS
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